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10/601,357	06/23/2003	Ludmila Cherkasova	200311047-1	7467

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EXAMINER

COULTER, KENNETH R

ART UNIT	PAPER NUMBER
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2141

MAIL DATE	DELIVERY MODE
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06/29/2007

PAPER

Please find below and/or attached an Office communication concerning this application or proceeding.

The time period for reply, if any, is set in the attached communication.

Office Action Summary

Application No.

10/601,357

Applicant(s)

CHERKASOVA, LUDMILA

Examiner

Kenneth R. Coulter

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-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --

Period for Reply

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 3 MONTH(S) OR THIRTY (30) DAYS, WHICHEVER IS LONGER, FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133). Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

Status

- 1) ☒ Responsive to communication(s) filed on 13 April 2007.
- 2a) ☒ This action is **FINAL**. 2b) ☐ This action is non-final.
- 3) ☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

Disposition of Claims

- 4) ☒ Claim(s) 1-4, 6-14, 16, 18-21 and 23-39 is/are pending in the application.
- 4a) Of the above claim(s) _____ is/are withdrawn from consideration.
- 5) ☐ Claim(s) _____ is/are allowed.
- 6) ☒ Claim(s) 1-4, 6-14, 16, 18-21 and 23-39 is/are rejected.
- 7) ☐ Claim(s) _____ is/are objected to.
- 8) ☐ Claim(s) _____ are subject to restriction and/or election requirement.

Application Papers

- 9) ☐ The specification is objected to by the Examiner.
- 10) ☐ The drawing(s) filed on _____ is/are: a) ☐ accepted or b) ☐ objected to by the Examiner.
Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).
Replacement drawing sheet(s) including the correction is required if the drawing(s) is objected to. See 37 CFR 1.121(d).
- 11) ☐ The oath or declaration is objected to by the Examiner. Note the attached Office Action or form PTO-152.

Priority under 35 U.S.C. § 119

- 12) ☐ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).
- a) ☐ All b) ☐ Some * c) ☐ None of:
- ☐ Certified copies of the priority documents have been received.
 - ☐ Certified copies of the priority documents have been received in Application No. _____.
 - ☐ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).
- * See the attached detailed Office action for a list of the certified copies not received.

Attachment(s)

- | | |
|--|---|
| 1) <input type="checkbox"/> Notice of References Cited (PTO-892) | 4) <input type="checkbox"/> Interview Summary (PTO-413)
Paper No(s)/Mail Date. _____ |
| 2) <input type="checkbox"/> Notice of Draftsperson's Patent Drawing Review (PTO-948) | 5) <input type="checkbox"/> Notice of Informal Patent Application |
| 3) <input type="checkbox"/> Information Disclosure Statement(s) (PTO/SB/08)
Paper No(s)/Mail Date _____ | 6) <input type="checkbox"/> Other: _____ |

DETAILED ACTION

Claim Rejections - 35 USC § 101

1. 35 U.S.C. 101 reads as follows:

Whoever invents or discovers any new and useful process, machine, manufacture, or composition of matter, or any new and useful improvement thereof, may obtain a patent therefor, subject to the conditions and requirements of this title.

2. Claims 32 – 35 are rejected under 35 U.S.C. 101 because the claimed invention is directed to non-statutory subject matter.

Claims 32 – 35 are directed to software that is not implemented on a computer-readable storage medium.

Data structures not claimed as embodied in computer-readable media are descriptive material *per se* and are not statutory because they are not capable of causing functional change in the computer. See, e.g., *Warmerdam*, 33 F.3d at 1361, 31 USPQ2d at 1760 (claim to a data structure *per se* held nonstatutory). Such claimed data structures do not define any structural and functional interrelationships between the data structure and other claimed aspects of the invention which permit the data structure's functionality to be realized. In contrast, a claimed computer-readable medium encoded with a data structure defines structural and functional interrelationships between the data structure and the computer software and hardware components which permit the data structure's functionality to be realized, and is thus statutory.

Claim Rejections - 35 USC § 102

3. The following is a quotation of the appropriate paragraphs of 35 U.S.C. 102 that form the basis for the rejections under this section made in this Office action:

A person shall be entitled to a patent unless –

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(e) the invention was described in (1) an application for patent, published under section 122(b), by another filed in the United States before the invention by the applicant for patent or (2) a patent granted on an application for patent by another filed in the United States before the invention by the applicant for patent, except that an international application filed under the treaty defined in section 351(a) shall have the effects for purposes of this subsection of an application filed in the United States only if the international application designated the United States and was published under Article 21(2) of such treaty in the English language.

4. Claims 1 – 4, 6 – 14, 16, 18 – 21, and 23 – 39 are rejected under 35

U.S.C. 102(e) as being anticipated by Jackson et al. (U.S. Pat. Pub. No. 2002/0152305)

(Systems and Resources for Resource Utilization Analysis in Information Management Environments).

4.1 Regarding claim 1, Jackson discloses a method for managing admission of requests to a shared media server, the method comprising:

allowing each of a plurality of hosting services access to any of a set of shared resources for serving their respective streaming files to clients, wherein said set of shared resources comprises memory (Abstract; Figs. 6, 8, 9A-9D; paragraphs 292, 293); and

managing admission of client requests for streaming files to each of the plurality of hosting services to ensure that a desired amount of usage of the shared resources is available to each hosting service (Abstract; Figs. 8, 6; paragraphs 292, 293), wherein said managing admission of client requests for streaming files comprises:

receiving a client request for a streaming file to be served from one of said hosting services (paragraph 123 “dedicated block-level cache processor capable

of block level cache processing ... as well as other storage networking protocols."); and

using a segment-based memory model to determine whether at least a portion of the requested streaming file is in the memory (paragraphs 123, 124).

4.2 Per claim 2, Jackson teaches the method of claim 1 further comprising: implementing the plurality of hosting services on a shared media server (paragraphs 195, 197).

4.3 Regarding claim 3, Jackson discloses the method of claim 1 wherein the set of shared resources comprises: shared memory resources and shared disk resources (paragraphs 195, 197).

4.4 Per claim 4, Jackson teaches the method of claim 1 further comprising: determining the desired amount of usage of the shared resources for a hosting service from a service level agreement (Fig. 8; paragraphs 13, 16, 235, 269).

4.5 Per claim 6, Jackson teaches the method of claim 5 further comprising: determining from the segment-based memory model a cost associated with the one of said hosting services serving the requested streaming file (paragraph 125 "weighs ongoing viewer cache value versus the dynamic time-size cost of maintaining particular

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content in cache memory"; paragraphs 123, 124).

4.6 Regarding claim 7, Jackson discloses the method of claim 1 wherein said managing admission of client requests for streaming files comprises: receiving a new request for service of a streaming file by one of the plurality of hosting services; performing a resource availability check for the one of a plurality of hosting services to determine whether the requested hosting service has sufficient available resource usage allocated thereto to service the new request (paragraphs 292, 293).

4.7 Per claim 8, Jackson teaches the method of claim 7 wherein said managing admission of client requests for streaming files further comprises: performing a performance isolation guarantee check for the plurality of hosting services to determine whether acceptance of the new request will violate, at any point in the future, availability of a desired amount of usage of the shared resources for any of the plurality of hosting services (paragraph 9 "**predictability**"; paragraph 10 "**capacity planning**"; paragraph 30 "**capacity planning**" "**predict future loads**"; paragraphs 127, 216, 219, 269).

4.8 Regarding claim 9, Jackson discloses the method of claim 1 further comprising: specifying, for each of the plurality of hosting services, a desired amount of usage of the shared resources to be available at any given time for the hosting service (Abstract; Fig. 8; paragraphs 292, 293).

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4.9 Per claim 10, Jackson teaches the method of claim 9 wherein said managing admission of client requests comprises: managing admission of client requests for streaming files to each of the plurality of hosting services to ensure that each of the plurality of hosting services has usage of its corresponding specified desired amount of the shared resources (Abstract; Fig. 8; paragraphs 292, 293).

4.10 Regarding claims 11 – 14, 16, 18 – 21, and 23 – 39, the rejection of claims 1 – 4 and 6 – 10 under 35 USC 102(e) (paragraphs 4.1 – 4.9 above) applies fully.

Response to Arguments

5. Applicant's arguments filed 4/13/07 have been fully considered but they are not persuasive.

Regarding claim 1, Applicant argues that Jackson fail to teach "a segment-based memory model to determine whether at least a portion of the requested streaming file is in the memory of a shared media server.

Examiner disagrees.

Jackson teach using a segment-based memory model to determine whether at least a portion of the requested streaming file is in the memory (paragraph 123 "dedicated block-level cache processor capable of block level cache processing ... as well as other storage networking protocols."); paragraph 124).

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Regarding claim 11, Applicant argues that Jackson fail to teach “an admission controller that is operable to determine whether acceptance of a new request will violate, at any point in the future, availability of a desired amount of usage of the shared resources for any of the plurality of hosting services.”

Examiner disagrees.

Jackson teach an admission controller that is operable to determine whether acceptance of a new request will violate, at any point in the future, availability of a desired amount of usage of the shared resources for any of the plurality of hosting services (paragraph 9 “**predictability**”; paragraph 10 “**capacity planning**”; paragraph 30 “**capacity planning**” “**predict future loads**”; paragraphs 127, 216, 219, 269)

Regarding claim 18, Applicant’s arguments are explained in the arguments with regard to claim 11 above.

Regarding claim 23, Applicant argues that Jackson fail “to teach a modeled memory state of the shared resources, and thus fail(s) to teach determining a cost to a hosting service for serving a requested streaming file based at least in part on such a modeled memory state.”

Examiner disagrees.

Jackson teaches a modeled memory state of the shared resources, and teaches determining a cost to a hosting service for serving a requested streaming file based at least in part on such a modeled memory state (paragraph 125 “weighs ongoing viewer

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cache value versus the dynamic time-size cost of maintaining particular content in cache memory"; paragraphs 123, 124).

Regarding claims 28 and 32, Applicant's arguments are explained in the arguments with regard to claim 1 above.

Regarding claim 36, Applicant's arguments are explained in the arguments with regard to claim 11 above.

Conclusion

6. **THIS ACTION IS MADE FINAL.** Applicant is reminded of the extension of time policy as set forth in 37 CFR 1.136(a).

A shortened statutory period for reply to this final action is set to expire **THREE MONTHS** from the mailing date of this action. In the event a first reply is filed within **TWO MONTHS** of the mailing date of this final action and the advisory action is not mailed until after the end of the **THREE-MONTH** shortened statutory period, then the shortened statutory period will expire on the date the advisory action is mailed, and any extension fee pursuant to 37 CFR 1.136(a) will be calculated from the mailing date of the advisory action. In no event, however, will the statutory period for reply expire later than **SIX MONTHS** from the mailing date of this final action.

7. Any inquiry concerning this communication or earlier communications from the examiner should be directed to Kenneth R. Coulter whose telephone number is 571 272-3879. The examiner can normally be reached on M - F, 7:30 am - 4 pm.

If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, Rupal Dharia can be reached on 571 272-3880. The fax phone number for the organization where this application or proceeding is assigned is 571-273-8300.

Information regarding the status of an application may be obtained from the Patent Application Information Retrieval (PAIR) system. Status information for published applications may be obtained from either Private PAIR or Public PAIR. Status information for unpublished applications is available through Private PAIR only. For more information about the PAIR system, see <http://pair-direct.uspto.gov>. Should you have questions on access to the Private PAIR system, contact the Electronic Business Center (EBC) at 866-217-9197 (toll-free). If you would like assistance from a USPTO Customer Service Representative or access to the automated information system, call 800-786-9199 (IN USA OR CANADA) or 571-272-1000.

krc

KENNETH R. COULTER
PRIMARY EXAMINER

